

Amendment
Serial No. 09/987,901
Attorney Docket No. 011543

REMARKS

Claims 1-3 and 5-9 are pending in the present application and are rejected. Claims 1, 2, 6, 8 and 9 are herein amended. Claim 4 is herein cancelled without prejudice. Applicant thanks the Examiner for the courtesies extended in the telephone interview of June 29, 2006. Applicant's reply to the comments of the interview are incorporated herein.

Applicant's Response to Claim Rejections under 35 U.S.C. §103

Claims 1-9 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schwebbach (U.S. Patent No. 5,219,321) in view of Martin et al. (U.S. Patent No. 5,062,597).

It is the position of the Office Action that Schwebbach discloses the invention as claimed, with the exception of a table that moves vertically and a detection mechanism for controlling vertical movement. The Office Action relies on Martin to provide this teaching.

Schwebbach teaches a zig-zag folding apparatus which is disposed between side wall 19 and side wall 30 of a machine. The apparatus is attached to the side wall 19 by shafts 16 and 30. Gear wheel 17 is attached to shaft 16 and acts to drive element 78 which comprises cams 7 and 8. These cams 7 and 8 in turn control the movement of guide channel devices 9 and 10 via drive rods 5 and 6. Guide channel devices 9 and 10 each include guide plates 63, 64, 67 and 68, which guide the path of web 1 of paper, foil, etc. As illustrated in Figures 1 and 3, guide channel device 9 pivots about pivot 12, while guide channel device 10 pivots about pivot pins 51 and 53. Guide channel devices 9 and 10 are joined at hinge 11. It is noted that pivot 12 is stationary while pivot pins 51 and 53 are movable. See column 2, lines 47-49.

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It is the position of the Office Action that “[t]he pivoting of swing arm is actuated by gear 17 (motor driven) located in the axis of pivoting.” In the telephone interview, the Examiner noted that drive rods 5 and 6 were broadly interpreted to be part of the swing arm. In response, Applicant respectfully submits that Schwebbach does not support this position. First, it is noted that claims 1, 2, 6 and 8 each recite that “said swing arm is pivoted about said axis by a swing operation motor disposed in said axis.” “Said axis” is the axis about which the swing arm pivots.

In Schwebbach, the guide channel device 9 pivots about stationary pivot 12, and the guide channel device 10 pivots about pivot pins 51 and 53. Gear 17 is disposed in an axis about which element 78 rotates, thus driving cams 7 and 8. According to Schwebbach “rotation of element 78 about the central axis of shaft 16 reciprocates rods 5 and 6 for oscillating the guide channels (emphasis added).” Column 3, lines 1-3. Thus, drive rods 5 and 6 reciprocate back and forth, and do not pivot about an axis. Therefore, drive rods 5 and 6 are not a part of a swing arm, under the broadest reasonable interpretation.

Additionally, Schwebbach does not disclose a motor of any kind, whether disposed in the axis of pivoting or otherwise. Schwebbach merely discloses that “[g]ear wheel 17 is driven from a suitable source (not shown).” See column 2, lines 63 and 64. Schwebbach does not disclose a specific type or location of the “suitable source.” Therefore, Applicant respectfully submits that Schwebbach does not disclose or suggest a “a swing operation motor disposed in said axis.”

Furthermore, claims 1, 2, 6, 8 and 9 recite the structural feature of a telescoping operation motor included in the swing arm. As described in the specification and figures, this telescoping operation motor acts to extend and retract a sub-arm from the main arm body in order to

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minimize the distance between the tip of the swing arm and the table, particularly when the swing arm is above an edge of the table. Applicant respectfully submits that none of the cited references, either singly or in combination, disclose such a feature. Instead, the guide channels 9 and 10 of Schwebbach “are hingedly connected as at 11 so that the devices can be swiveled relative to one another.” Column 2, lines 43-45.

Additionally, Applicant respectfully submits that there is no suggestion or motivation in the art to combine Schwebbach and Martin. Martin discloses a receiving table 47 which is vertically moveable. See column 4, lines 56-58. Martin also discloses helical coils 40 which act to stop the movement of the receiving table 47 “when the helical coil stops getting onto the piles of the flaps laid down.” See column 5, line 56 to column 6, line 2. The Office Action broadly interprets these helical coils to be “an error detector,” as required by claim 5.

In response, Applicant respectfully submits that there is no suggestion or motivation in the art to combine the teachings of Schwebbach and Martin. In fact, Applicant submits that Schwebbach teaches away from the addition of the receiving table 47 or helical coils 40 of Martin. First, Applicant addresses the receiving table. Schwebbach discloses its own solution to the problem of storage of folded sheets. Specifically, Schwebbach teaches “[t]o improve depositing the web in zigzag folds, the breaks or points 2 of the web can be grasped and pushed down by the known method with the use of a revolving screw 70 with large threads.” Column 5, lines 12-15. Therefore, Applicant respectfully submits that the movable receiving table 47 of Martin is not necessary to move the folded sheets down, and in fact it may destroy the function of the revolving screw 70 of Schwebbach.

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Applicant further submits that it would not have been obvious to utilize the helical coils 40 of Martin. Helical coils 40 are part of a complicated system involving brushes 35, raised portion 41 and an electrical switch (unnumbered). One having ordinary skill in the art would not have been motivated to combine this complex system with the apparatus of Schwebbach. Therefore, for at least the foregoing reasons, the claimed invention distinguishes over the cited art and defines patentable subject matter. Favorable reconsideration is earnestly solicited.

Should the Examiner deem that any further action by applicant would be desirable to place the application in condition for allowance, the Examiner is encouraged to telephone applicant's undersigned agent.

If this paper is not timely filed, Applicant respectfully petitions for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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